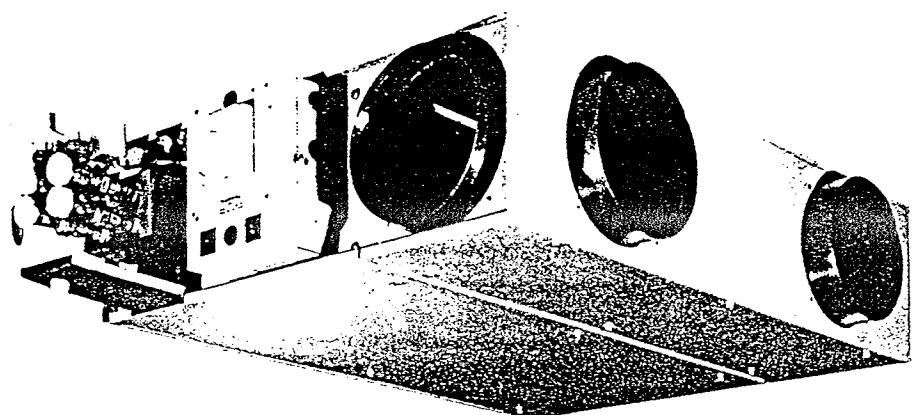


# Fan Coil Units

THE MAGNUM RANGE



ENVIRONMENTAL COMFORT SYSTEMS



**LENNOX**

# The Magnum Range

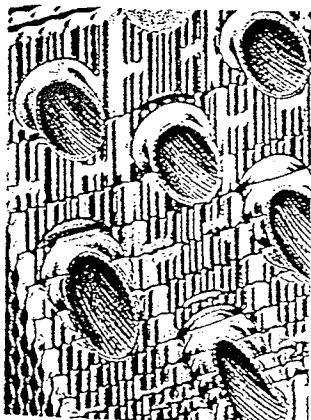
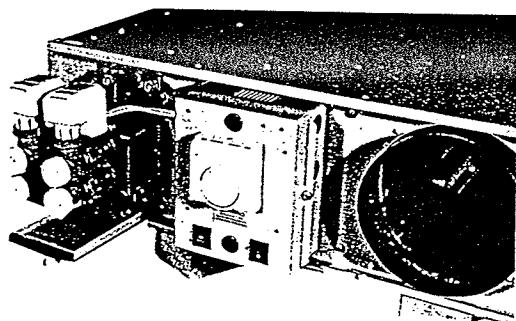
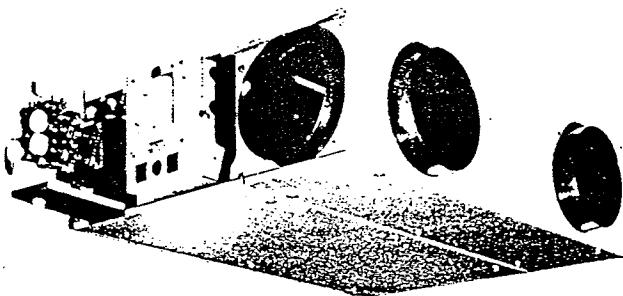
*The new Magnum Range of fan coil units are sophisticated units designed to simplify installation, provide quiet, energy efficient operation and ensure long term reliability.*

*Many quality features are standard and the range of factory fitted options is unlimited, which means Lennox can match your every requirement while making on-site costs both lower and more predictable.*

## *The Magnum II with Waterside controls*

Developed to enhance the specification of previous Lennox waterside fan coil units, the Magnum II incorporates enhanced design features to enable installers and specifiers to fit and forget these versatile and reliable units.

Waterside units offer the advantage that valves to each coil will close on demand, preventing condensation on external casing. Waterside units respond fast to changing conditions, so you can always rely on the Magnum II to provide just the right environment.



Nowhere is the integration of quality and design more apparent than in the coils used in Lennox equipment.

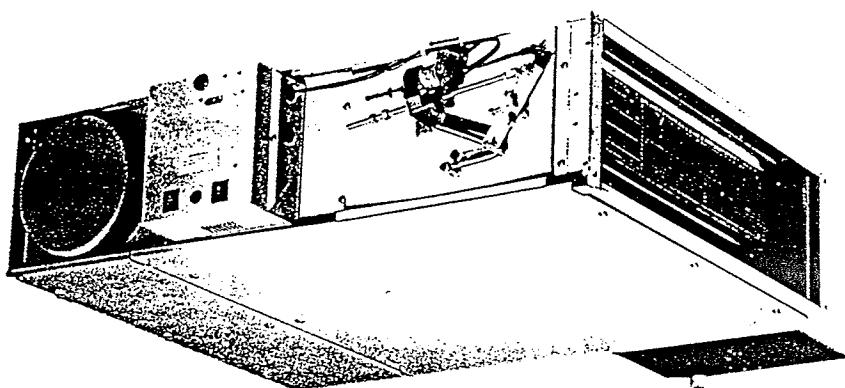
**LENNOX**

# The Magnum Airside Series

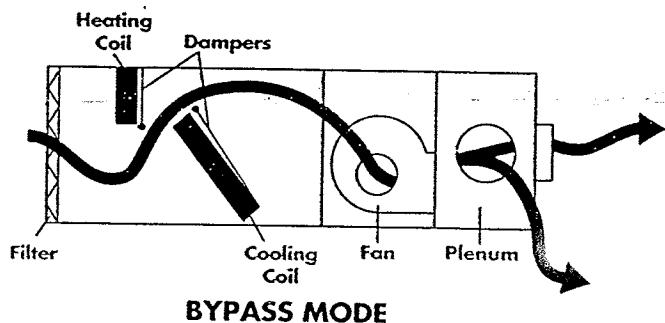
## The Magnum Airside

Continuing Lennox's strong commitment to fan coil units comes the Magnum Airside Range.

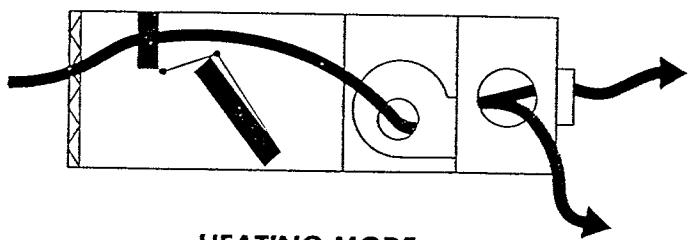
Magnum Airside units feature the unique twin damper configuration, which dispenses of the need for valves and means that the unit can be fitted and forgotten, servicing is cut to a minimum and breakdowns are virtually unheard of, in fact, only the filter will need to be cleaned occasionally.



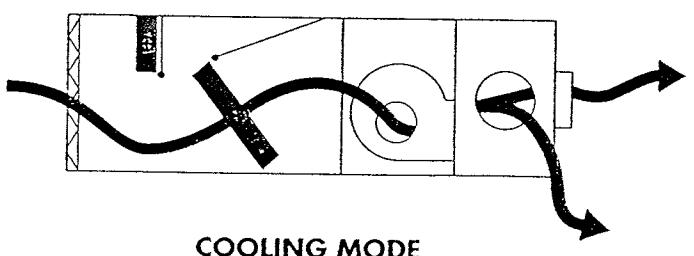
### How the Magnum Airside Works



In bypass mode both the heating and cooling dampers are closed, air passes through the filter and between the coils.



In heating mode the cooling damper is closed and air passes through the heating coil.



In the cooling mode the heating damper is closed forcing air through the cooling coil.

The unique twin damper means the Airside unit modulates continuously between heating and cooling to maintain total comfort conditions.

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# *Specification of Magnum Fan Coil Units*

## **Castings**

The casings are constructed from durable heavy gauge galvanised sheet metal pretreated and finished with a high grade, low gloss, light grey polyester powder paint.

## **Discharged Plenum**

The unit is provided as standard with a multi spigotted discharge plenum.

## **Drip Tray**

A high quality coated drip tray (insulated to prevent condensation) is fitted to collect moisture from the whole heat exchanger face and includes return bends and headers. 22mm drain connections are fitted as standard.

## **Fans**

Proven fan technology is used – a double inlet, double with, forward curved direct centrifugal type, which gives excellent performance characteristics combined with very low noise levels. The impeller and motor both statically and dynamically balanced to VDI 2060.

## **Insulation**

Dual Function thermal and acoustic insulation is used, with a density of 100kg/m<sup>3</sup>. This is suitable for use within a temperature range of -30°C to 100°C (continuously) and complies with Building Regulations Class 1, BS 476 Part 6 and Part 7 (Class 1).

## **Motors**

The Magnum Range features an external rotor motor and forward curved impeller assembly, fully speed controllable. The assembly is dynamically balanced to VDI 2060 and the motor is rated IP44 against dust particles and splash proof, complying with BS EN 60529 – 1991 (EC529) standards. Ball bearings are greased for life. Insulation is Class B.

## **Electrical**

Motors are available in singlephase 220V or 240V, 50Hz. Capacitor start and run. All motors are fitted with standard Thermal Overload Protection (S.T.O.P.).

## **Heat Exchangers**

The primary tubes are of solid drawn copper and mechanically bonded by expanding into close metallic contact with accurately formed collars on the continuous place aluminium fins. Copper headers are brazed for multi circuited heat exchangers and terminate with plain tail connections. When valve packs are fitted two or four connections are provided. All heat exchangers are suitable for heating or cooling functions – if a split coil is fitted a combination of both heating and cooling is possible. Air vents and drains are fitted as standard.

## **Performance and Pressure Testing**

All heat exchangers are performance tested and rated in accordance with BS 4856: Part 3 1975 (1983) and BS 4856 Part 5 1979. Units are pressure tested to 25 bar gauge.

## **Filters**

Standard filters are of the reticulated foam type-washable and enclosed in a fully reusable aluminium frame. They have a performance classification of EU2 to Eurovent 4/5 (BS6540) and comply with Building Regulations Class 0; also Part 1 BS 476 Part 6 and 7. If specified, disposable synthetic media with EU3 rating can be supplied.

## **Connections**

All connections are made to BS 2871 Part 1: 1971 and suitable for brazed or compression fitting. When valve packs are fitted all connections are threaded.

## **Controls**

All units are fitted with a On/Off switch and three speed selector switch, complete with 24 Volt control output.

## **Packaging**

All units are supplied with easy to follow installation instructions in specially designed packaging. Model identification and other necessary references are clearly marked on the container.

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# Selection and Technical Data

## Magnum II (MFC) & Magnum Airside (AMFC)

### Quick Selection Table

#### Total Cooling Duties (kW)

Based on entering air conditions of 23°C db/16.5°C wb & cw @ 6°C flow/11°C return

Model	High Speed	Medium Speed	Med/Low Speed	Low Speed	Extra Low Speed
150	2.55	2.28	2.16	2.02	1.55
190	3.42	3.14	2.92	2.70	2.48
260	4.92	4.36	4.14	3.88	3.27
330	6.14	5.53	5.20	4.92	4.04
440	8.12	6.77	6.36	6.03	5.62

#### Sensible Cooling Duties (kW)

Based on entering air conditions of 23°C db/16.5°C wb & cw @ 6°C flow/11°C return

Model	High Speed	Medium Speed	Med/Low Speed	Low Speed	Extra Low Speed
150	2.11	1.64	1.72	1.58	1.18
190	2.83	2.53	2.32	2.12	1.92
260	4.06	3.47	3.26	3.02	2.46
330	4.89	4.29	3.99	3.73	2.96
440	6.76	5.41	5.03	4.71	4.27

Note: (i) All above data is taken at 30Pa external static pressure, 3 row cooling and one row heating.

(ii) Cooling capacity duties are net i.e. motor heat taken off.

(iii) NR guide ref see page 11.

### Selection Procedure

#### Cooling Duty

- Select entering water temperature and temperature rise in Centre Section of Cooling Selection Graph (page 8). Introduce vertical line through chosen point.
- Select design entering air temperature WET BULB graph line in the top section.
- At intersection of 1 and 2 – read to left for total duty for each model at medium speed and 3 row cooling coil.
- Select design entering air temperature DRY BULB graph line in the lower section.
- Intersection of 1 and 4 – read left for sensible duty for each model at medium speed and 3 row cooling coil.
- Correction factors for coil type (page 7) and fan speed/external resistance (pages 6 and 7) are then applied to the sensible and total duties. If sensible duty is equal to or more than the total duty the sensible should be taken only i.e. S.H.R. = 100%.

#### Example:

A MFC260 with a 4+1\* row coil, running at ML speed has been selected. The external resistance being 45 Pa. Conditions Specified:

Cooling: entering air of 23°C db/16.5°C wd. chilled water at 6°C flow/11°C return

Heating: entering air of 20°C LPHW at 82°C flow/62°C return

- a) For the above conditions sensible and total duties are found from cooling capacity curves:

$$\text{Total duty} = 4.36 \text{ kW}$$

$$\text{Sensible duty} = 3.44 \text{ kW}$$

- b) The correction factors for coil type and fan speed/external resistance are applied:

$$\text{Corrected total duty} = 4.36 \times 0.88 \times 1.11 = 4.26 \text{ kW}$$

$$\text{Corrected sensible duty} = 3.44 \times 0.86 \times 1.08 = 3.20 \text{ kW}$$

- c) Chilled water flow rate and hydraulic resistance are determined:

$$\text{Flow rate} = (4.26 \times 0.180)/(4.186 \times 5) = 0.212 \text{ kg/s}$$

$$\text{Hydraulic resistance} = 34 \text{ kPa}$$

- d) For the above conditions, temperature difference is found and the heating duty is then determined:

$$\text{Temperature difference} = 72^\circ\text{C} - 20^\circ\text{C} - 52^\circ\text{C}$$

$$\text{Heating duty} = 8.8 \text{ kW}$$

- e) The correction factors for water temperature drop and fan speed/external resistance are applied:

$$\text{Corrected heating duty} = 8.80 \times 0.9 \times 0.89 = 7.05 \text{ kW}$$

- f) Hot water flow rate and hydraulic resistance are then found:

$$\text{Flow rate} = 7.05/(4.195 \times 20) = 0.084 \text{ kg/s}$$

$$\text{Hydraulic resistance} = 0.94 \text{ kPa}$$

\*Note: AMFC is 34 reduced 1 row heating

#### Heating Duties (kW)

Heating Duties based on air @ 20°C & LPHW @ 82°C flow/71°C return

Model	High Speed	Medium Speed	Med/Low Speed	Low Speed	Extra Low Speed
150	6.21	5.60	5.32	4.92	4.03
190	7.63	7.00	6.58	6.02	5.74
260	10.54	9.50	9.02	8.45	7.41
330	13.31	12.10	11.49	10.64	9.20
440	16.96	14.50	13.63	12.76	12.18

#### Nominal Air Volumes & Sound Rating (NR)

Volumes shown in litres/sec @ 30Pa external resistance

Model	High	Nr Guide	Med	Nr Guide	Med/Low	Nr Guide	Low	Nr Guide	Ex. Low	Nr Guide
150	181	39	150	37	139	36	121	34	84	32
190	222	35	190	32	172	31	148	30	133	28
260	317	36	260	34	239	33	215	32	166	31
330	392	38	330	36	303	35	273	33	205	31
440	589	43	440	34	400	32	360	30	325	29

#### Flow Rate

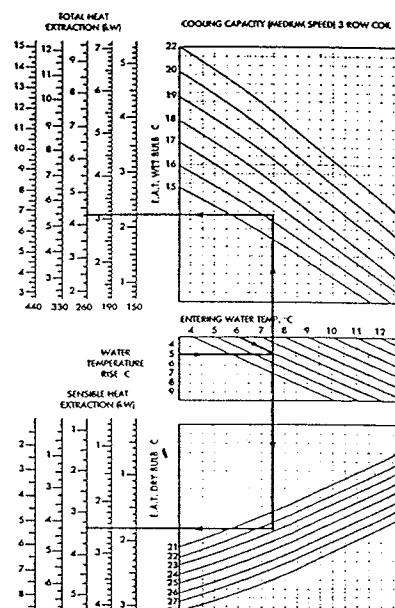
- 7) The design flow rate is required to determine hydraulic resistance. The flow rate is calculated by dividing the total heat extraction plus the motor power for the selected speed, by the water temperature rise and a factor of 4.186. The hydraulic resistance is then read from the hydraulic resistance chart (page 10).

#### Heating Duty

- 8) For the heating duty the temperature difference is determined and plotted on the heating selection graph (page 9). Temperature difference = mean water temp. – entering air temp.

- 9) Correction factors for water temperature drop and fan speed/external resistance are then applied to the heating duty (page 9).

- 10) The hot water flow rate is determined by dividing the heating duty by the water temperature drop and a factor of 4.195. The hydraulic can then be read from the hydraulic resistance graph (page 10).



Data is based on a 3+1 coil.

# Performance Data and Correction Factors

Model	Voltage	Fan Speed	Air Volume (l/s)						Total Cooling [Factors]						Sensible Cooling [Factors]						
			15Pa	30Pa	45Pa	60Pa	75Pa	15Pa	30Pa	45Pa	60Pa	75Pa	15Pa	30Pa	45Pa	60Pa	75Pa	Watts	F.L.C.	S.C. Amps	Model
150	240V/1/50Hz	H	186	181	177	172	168	1.14	1.12	1.10	1.08	1.07	1.18	1.15	1.13	1.10	1.09	154	0.72	0.76	
		M	153	150	144	129	124	1.01	1.00	0.97	0.91	0.89	1.01	1.00	0.97	0.94	0.89	108	0.48	0.51	
		ML	145	139	135	121	112	0.98	0.95	0.93	0.88	0.82	0.98	0.94	0.92	0.85	0.79	97	0.44	0.47	150
		L	129	121	100	94	87	0.92	0.89	0.78	0.74	0.70	0.90	0.86	0.75	0.70	0.66	76	0.35	0.37	
190	240V/1/50Hz	EL	94	84	74	69	60	0.74	0.68	0.62	0.60	0.55	0.70	0.64	0.58	0.56	0.51	53	0.27	0.29	
		H	243	222	210	195	176	1.15	1.09	1.06	1.01	0.94	1.19	1.12	1.08	1.01	0.93	172	0.79	0.83	
		M	207	190	182	153	136	1.06	1.00	0.97	0.88	0.80	1.08	1.00	0.97	0.85	0.77	139	0.64	0.68	
		ML	188	172	157	146	131	0.99	0.93	0.88	0.84	0.77	0.99	0.92	0.86	0.81	0.74	114	0.50	0.53	190
260	240V/1/50Hz	L	167	148	136	129	112	0.92	0.86	0.80	0.77	0.71	0.91	0.84	0.77	0.74	0.67	100	0.44	0.47	
		EL	153	133	119	108	95	0.89	0.79	0.74	0.69	0.62	0.86	0.76	0.70	0.65	0.58	82	0.38	0.40	
		H	322	317	304	291	273	1.14	1.13	1.09	1.07	1.02	1.18	1.17	1.12	1.09	1.03	260	1.15	1.21	
		M	270	260	234	218	210	1.02	1.00	0.93	0.90	0.88	1.03	1.00	0.92	0.88	0.85	198	0.89	0.94	
330	240V/1/50Hz	ML	252	239	215	205	189	0.98	0.95	0.88	0.86	0.80	0.98	0.94	0.86	0.83	0.77	180	0.76	0.80	260
		L	236	215	197	179	166	0.95	0.89	0.83	0.78	0.74	0.74	0.74	0.77	0.75	0.71	160	0.65	0.69	
		EL	187	166	156	138	127	0.80	0.75	0.72	0.65	0.62	0.77	0.71	0.68	0.61	0.58	120	0.50	0.54	
		H	415	392	372	349	326	1.14	1.11	1.08	1.03	0.98	1.18	1.14	1.10	1.04	0.98	288	1.25	1.32	
440	240V/1/50Hz	M	356	330	310	280	260	1.05	1.00	0.96	0.90	0.86	1.06	1.00	0.95	0.88	0.83	232	1.00	1.05	
		ML	326	303	270	247	227	0.99	0.94	0.89	0.80	0.77	0.99	0.93	0.86	0.78	0.74	208	0.90	0.95	
		L	303	273	240	214	188	0.95	0.89	0.81	0.75	0.69	0.94	0.87	0.78	0.72	0.65	186	0.81	0.85	
		EL	238	205	178	162	142	0.80	0.73	0.66	0.62	0.57	0.77	0.69	0.62	0.58	0.53	162	0.65	0.69	
		H	607	589	572	554	532	1.23	1.20	1.17	1.14	1.11	1.29	1.25	1.22	1.18	1.14	595	2.53	2.71	
		M	466	440	418	396	374	1.05	1.00	0.97	0.93	0.90	1.04	1.00	0.96	0.92	0.88	395	1.73	1.85	
		ML	426	400	378	365	343	0.98	0.94	0.91	0.88	0.85	0.98	0.93	0.89	0.86	0.82	350	1.55	1.66	
		L	387	360	343	325	303	0.92	0.89	0.85	0.82	0.77	0.91	0.87	0.83	0.79	0.74	306	1.35	1.45	
		EL	352	325	308	286	264	0.87	0.83	0.79	0.76	0.72	0.85	0.79	0.76	0.72	0.68	268	1.18	1.26	

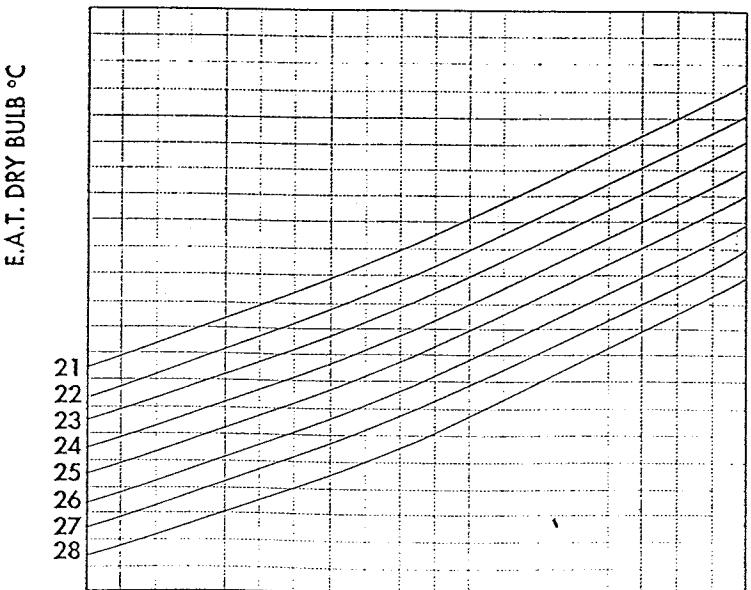
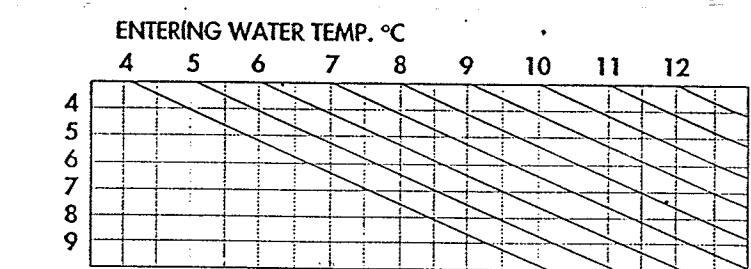
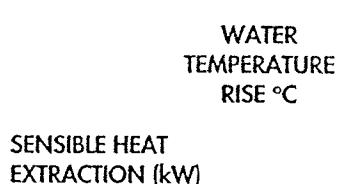
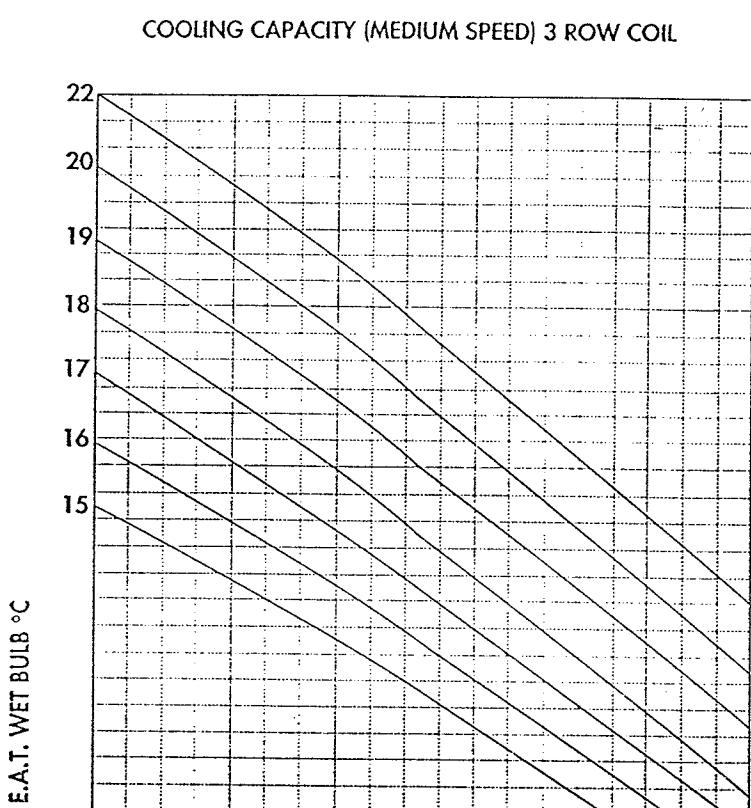
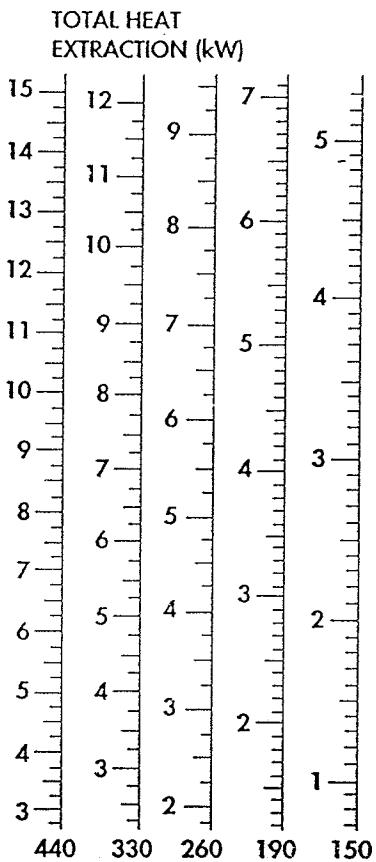
Cooling Capacity Correction Facility\*  
S.C. = Starting Current F.L.C. = Full Load Current

Coil Type	Sensible Cooling	Total Cooling	Air Volume
4 Row Cooling	1.10	1.12	1.00
4 Row Cooling with 1 row heating	1.08	1.11	0.98

\*Agrum Airside is 3 row cooling reduced 1 row heating only

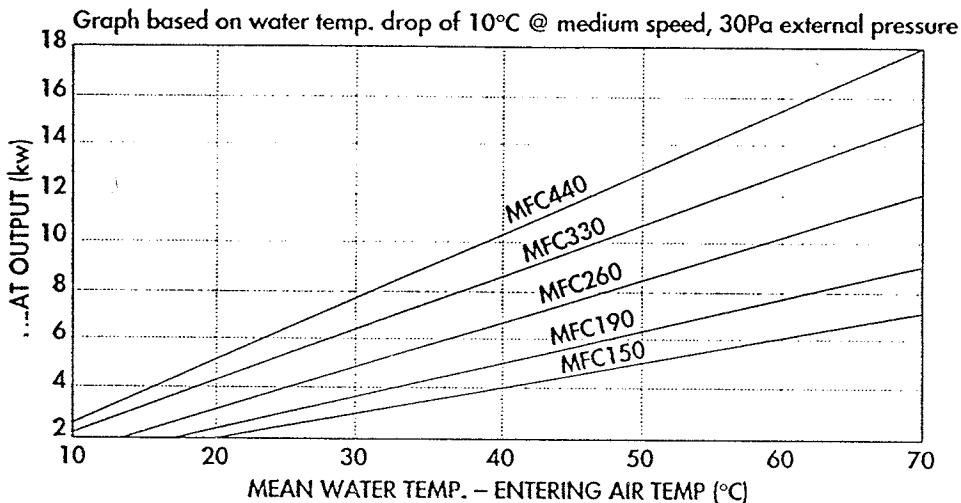
# Cooling Selection Graphs

NB: Duties are for medium speed 3 Row Cooling at 30Pa external static pressure. Correction factors for other speeds and external static pressure can be found on pages 6 and 7.



# Heating Selection Graph and Correction Factors

## Magnum II



Magnum II and Magnum Airside Ranges (Reduced 1 Row Heating)

Model Number	150	190	260	330	440
Factor	0.55	0.55	0.55	0.55	0.65

### Heating correction factors

Model Number	Fan Speed	External Resistance				
		15Pa	30Pa	45Pa	60Pa	75Pa
AMFC150 MFC150	H	1.12	1.11	1.10	1.08	1.07
	M	1.02	1.00	0.97	0.91	0.89
	ML	0.97	0.95	0.93	0.88	0.85
	L	0.91	0.88	0.80	0.77	0.73
	EL	0.77	0.72	0.67	0.65	0.60
AMFC MFC190	H	1.14	1.09	1.06	1.02	0.95
	M	1.05	1.00	0.97	0.88	0.83
	ML	0.99	0.94	0.89	0.86	0.81
	L	0.92	0.86	0.83	0.80	0.74
	EL	0.88	0.82	0.76	0.73	0.68
AMFC260 MFC260	H	1.12	1.11	1.09	1.07	1.03
	M	1.03	1.00	0.93	0.89	0.88
	ML	0.98	0.95	0.89	0.87	0.84
	L	0.94	0.89	0.85	0.81	0.78
	EL	0.83	0.78	0.75	0.70	0.67
AMFC330 MFC330	H	1.13	1.10	1.07	1.04	0.99
	M	1.05	1.00	0.96	0.90	0.87
	ML	0.99	0.95	0.88	0.85	0.81
	L	0.95	0.88	0.84	0.78	0.72
	EL	0.83	0.76	0.71	0.67	0.63
AMFC440 MFC440	H	1.19	1.17	1.15	1.13	1.11
	M	1.04	1.00	0.97	0.93	0.90
	ML	0.98	0.94	0.91	0.89	0.86
	L	0.92	0.88	0.86	0.84	0.81
	EL	0.87	0.84	0.82	0.78	0.75

H = High Speed M = Medium Speed ML = Medium/Low Speed L = Low Speed EL = Extra Low Speed

### Heating duty correction factors for varying temperature drops

Water Temp Drop	10°C	15°C	20°C	25°C
Correction Factor	1.0	0.96	0.90	0.82

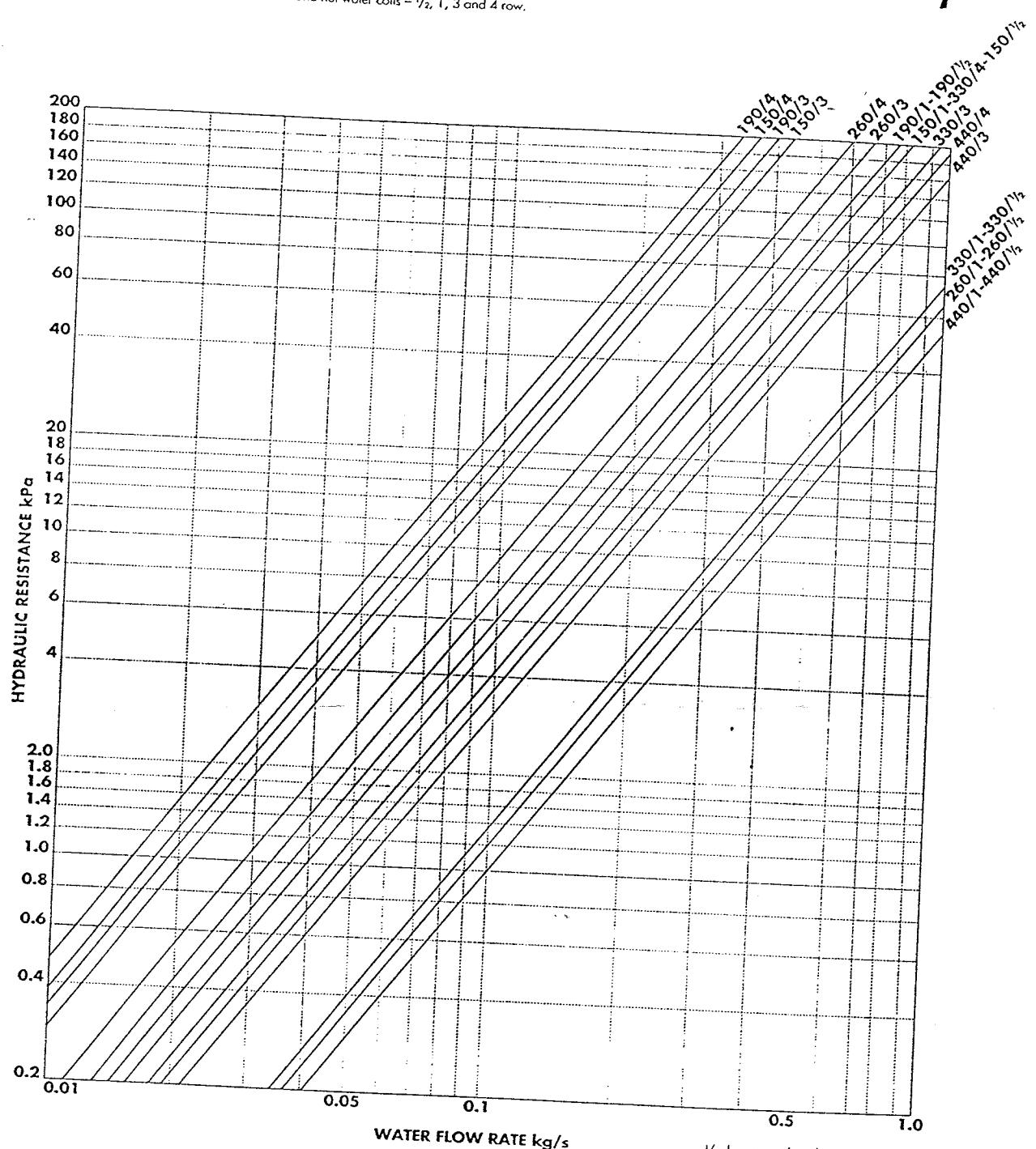
## Sound Power Level Spectra dB (re $10^{-12}$ Watts)

Room NR Guide: NR levels should only be used as a guide and are based on the following parameters. The figures have been calculated on the basis of air volume 1/l.s per square metre of room surface area, with a reverberation time of 0.8 seconds in diffused sound field and acoustic ceiling tiles fitted.  
 Sound power level: End reflection corrections have not been applied as these are deducted at the duct outlets.

Model Number			63	125	250	500	1K	2K	4K	8K	NR Guide
MFC150 AMFC150	H	INLET	54	62	56	54	50	46	42	36	39
		OUTLET	52	57	52	47	49	46	42	38	
		BREAKOUT	59	62	55	47	49	41	36	31	
	M	INLET	51	60	52	50	46	42	38	33	37
		OUTLET	50	54	48	44	45	42	38	33	
		BREAKOUT	60	60	51	44	44	37	32	28	
	ML	INLET	51	59	50	49	45	40	37	33	36
		OUTLET	50	53	46	43	44	40	36	31	
		BREAKOUT	58	58	50	43	42	36	30	26	
	L	INLET	51	58	48	48	43	38	35	33	34
		OUTLET	50	50	44	41	41	38	33	27	
		BREAKOUT	56	56	48	42	39	33	28	24	
	EL	INLET	50	56	46	46	40	34	32	31	32
		OUTLET	50	47	41	38	37	34	29	23	
		BREAKOUT	53	53	45	40	33	28	24	20	
MFC190 AMFC190	H	INLET	53	54	54	52	47	44	38	30	35
		OUTLET	48	54	47	45	46	41	35	31	
		BREAKOUT	56	62	52	46	44	38	31	28	
	M	INLET	51	52	51	50	44	40	34	28	32
		OUTLET	45	51	45	43	42	37	30	28	
		BREAKOUT	55	62	49	44	41	35	29	28	
	ML	INLET	50	52	50	49	42	38	31	28	31
		OUTLET	43	50	43	42	40	35	28	26	
		BREAKOUT	54	62	47	43	39	33	28	28	
	L	INLET	49	50	48	47	40	35	29	28	30
		OUTLET	42	49	41	40	38	33	27	26	
		BREAKOUT	53	61	45	42	37	31	28	28	
	EL	INLET	48	49	46	46	38	33	28	28	28
		OUTLET	41	48	39	38	36	31	26	27	
		BREAKOUT	52	61	43	41	35	29	28	28	
MFC260 AMFC260	H	INLET	59	58	57	56	51	47	42	32	36
		OUTLET	51	58	51	45	49	43	39	33	
		BREAKOUT	57	63	55	50	48	42	37	31	
	M	INLET	58	62	55	54	48	44	38	28	34
		OUTLET	49	55	48	43	45	40	34	29	
		BREAKOUT	55	63	52	47	45	39	34	29	
	ML	INLET	55	61	52	52	47	42	35	26	33
		OUTLET	50	55	47	42	44	38	32	27	
		BREAKOUT	53	61	50	46	43	37	32	29	
	L	INLET	52	61	50	51	45	40	33	25	32
		OUTLET	51	56	46	41	43	37	31	25	
		BREAKOUT	52	60	49	45	42	35	31	29	
	EL	INLET	47	60	45	48	42	36	28	22	31
		OUTLET	49	55	44	39	41	34	28	22	
		BREAKOUT	49	57	46	43	39	31	28	28	
MFC330 AMFC330	H	INLET	59	59	60	50	56	56	47	35	38
		OUTLET	50	55	53	50	52	47	43	38	
		BREAKOUT	59	62	59	56	55	51	44	36	
	M	INLET	57	56	58	58	52	52	44	32	36
		OUTLET	48	53	51	47	49	44	40	36	
		BREAKOUT	56	60	57	53	53	48	40	34	
	ML	INLET	56	55	58	57	51	51	42	30	35
		OUTLET	47	51	50	46	47	43	40	36	
		BREAKOUT	55	59	56	52	47	38	33	29	
	L	INLET	55	54	56	56	50	50	40	29	33
		OUTLET	46	50	48	45	45	41	37	36	
		BREAKOUT	54	58	55	51	50	46	36	32	
	EL	INLET	53	52	52	54	48	47	37	29	31
		OUTLET	44	46	45	42	41	37	31	30	
		BREAKOUT	52	56	53	49	47	46	33	30	
MFC440 AMFC440	H	INLET	63	69	66	64	59	56	53	45	43
		OUTLET	59	61	56	54	58	51	49	47	
		BREAKOUT	65	68	64	59	60	54	49	45	
	M	INLET	57	64	62	59	52	49	45	37	34
		OUTLET	53	56	51	49	49	44	40	36	
		BREAKOUT	60	65	59	54	55	47	42	36	
	ML	INLET	56	63	60	57	50	47	42	33	32
		OUTLET	50	53	50	47	46	40	37	33	
		BREAKOUT	58	64	57	54	52	45	40	34	
	L	INLET	55	62	58	56	49	45	40	34	30
		OUTLET	48	51	49	45	44	37	34	30	
		BREAKOUT	57	64	56	54	49	43	37	32	
	EL	INLET	54	61	56	55	48	43	38	32	29
		OUTLET	46	49	48	43	42	34	31	28	
		BREAKOUT	52	56	51	49	47	34	31	28	

# Hydraulic Resistance Graph

Hydraulic Resistance Graphs for chilled water and hot water coils -  $\frac{1}{2}$ , 1, 3 and 4 row.



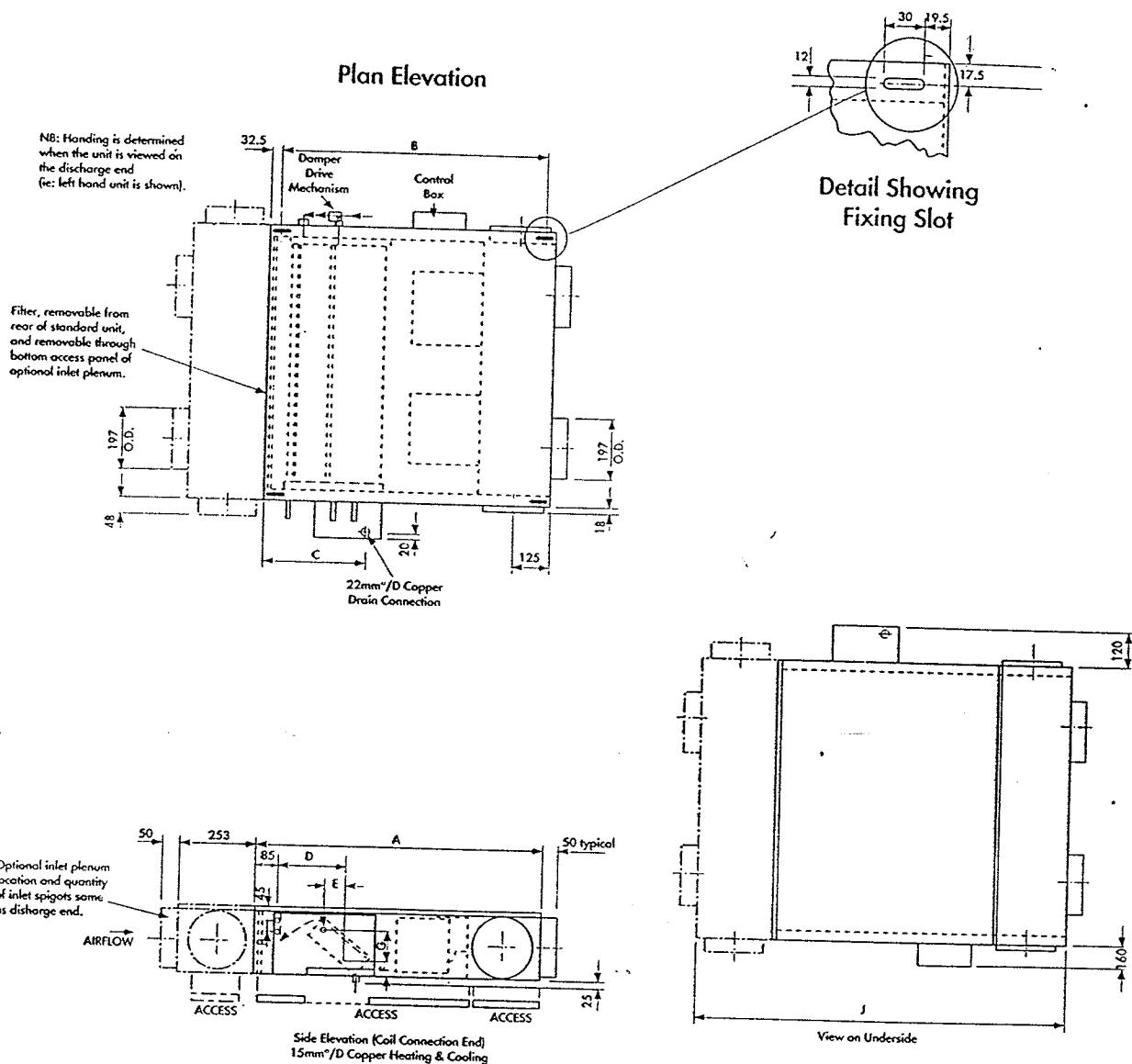
## Minimum Flow Rates

Model Number	Minimum Flow Rates (kg/s)			
	3 Row Cooling	4 Row Cooling	1 Row Heating	Reduced 1 Row Heating
MFC150	0.051	0.051	0.016	0.008
MFC190	0.051	0.051	0.016	0.008
MFC260	0.076	0.082	0.032	0.016
MFC330	0.102	0.102	0.032	0.016
MFC440	0.127	0.127	0.041	0.025
AMFC150	0.051	N/A	N/A	0.008
AMFC190	0.051	N/A	N/A	0.008
AMFC260	0.076	N/A	N/A	0.008
AMFC330	0.102	N/A	N/A	0.016
AMFC440	0.127	N/A	N/A	0.025

Note: Magnum Airside is 3 Row Cooling reduced 1 Row Heating only

## Dimensions - mm

Magnum Airside

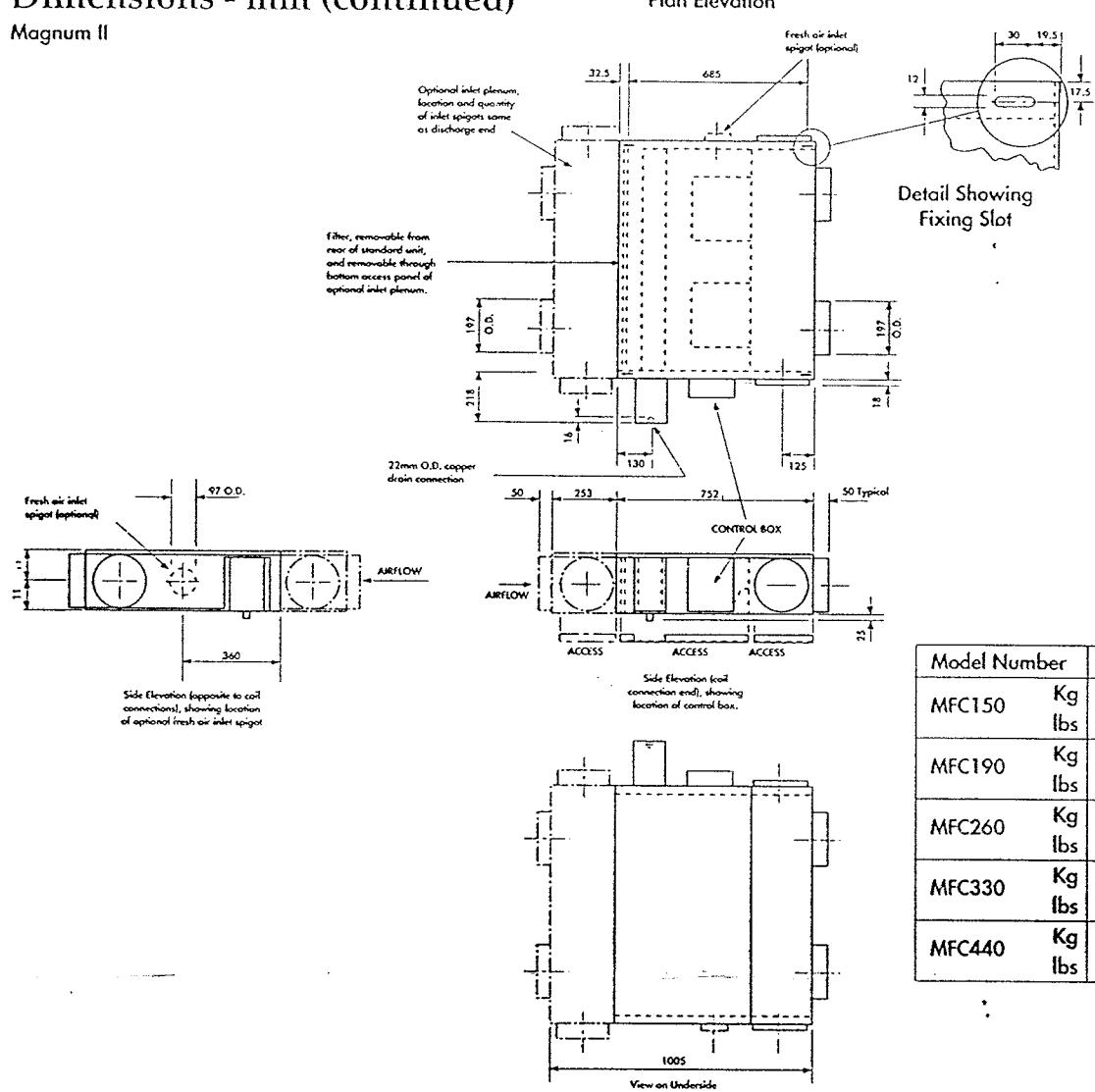


Model Number	A	B	C	D	E	F	G	H	J
AMFC150									
AMFC190									
AMFC260									
AMFC330									
AMFC440	1012	947	405	287	68	46	110	84	1265

Model Number	Net Weight
AMFC150	38
AMFC150	83
AMFC190	50
AMFC190	110
AMFC260	55
AMFC260	121
AMFC330	66
AMFC330	145
AMFC440	77
AMFC440	170

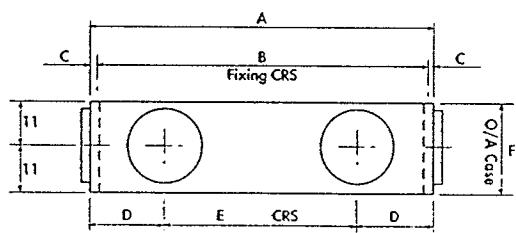
## Dimensions - mm (continued)

Magnum II

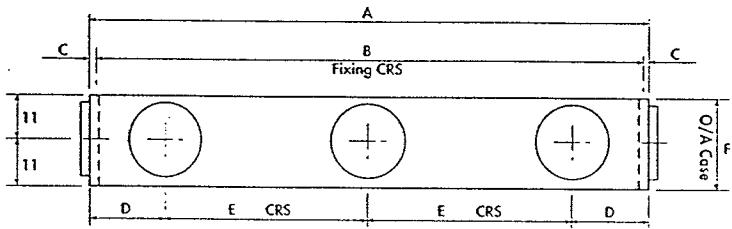


Model Number	Net Weight
MFC150	Kg 32 lbs 71
MFC190	Kg 44 lbs 97
MFC260	Kg 49 lbs 108
MFC330	Kg 59 lbs 130
MFC440	Kg 70 lbs 154

Models 150-190



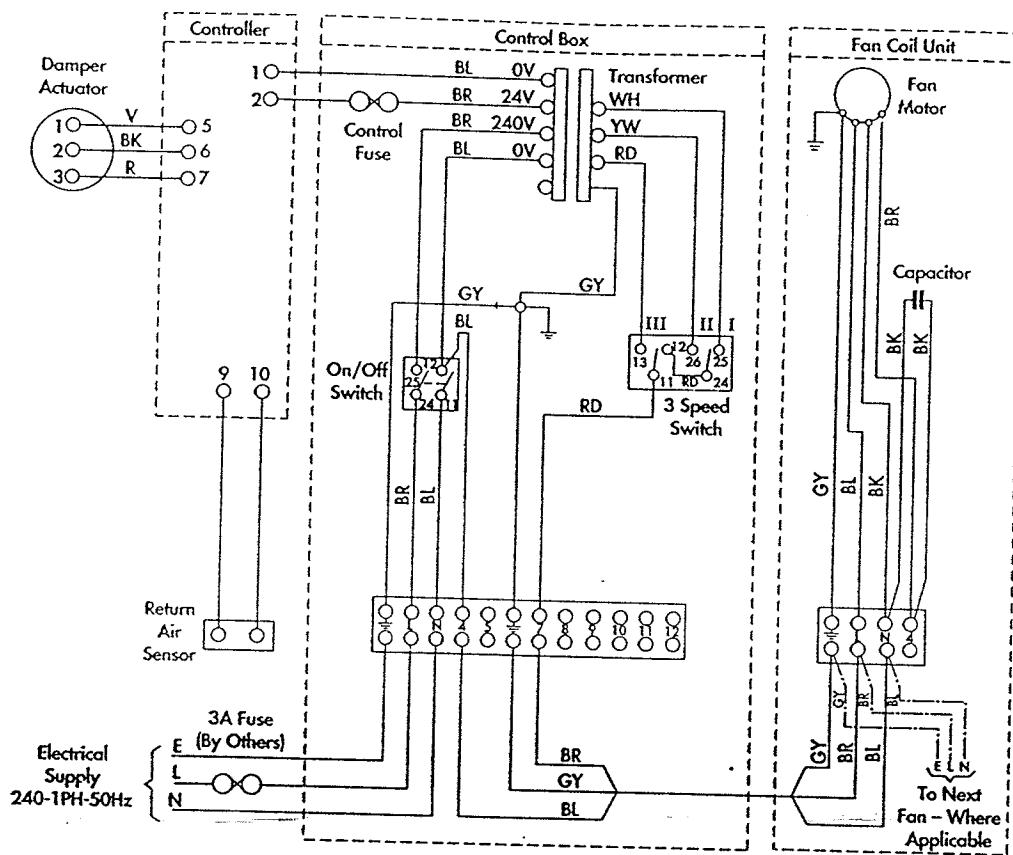
Models 260-440



Model Number	A	B	C	D	E	F
AMFC150	715	880	17.5	175	360	233
MFC150						
AMFC190	915	880	17.5	200	510	233
MFC190						
AMFC260	1165	1130	17.5	200	380	233
MFC260						
AMFC330	1465	1430	17.5	200	530	233
MFC330						
AMFC440	1465	1430	17.5	200	530	285
MFC440						

# Wiring Diagrams

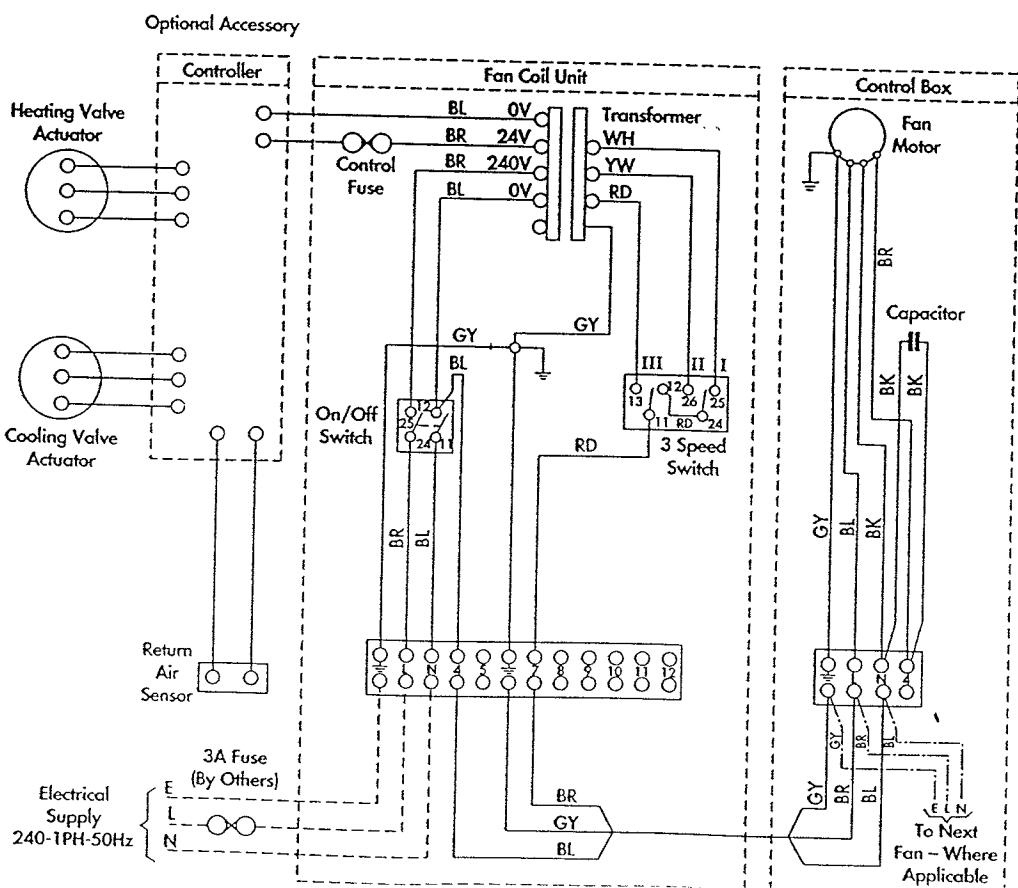
## Magnum Airside



Typical Wiring  
for Magnum  
Airside Control  
System

Colour Code	
BR	Brown
BL	Blue
GY	Green/Yellow
WH	White
YW	Yellow
RD	Red
BK	Black
GN	Green
V	Violet

## Magnum II with Waterside Control valves



Typical Wiring  
for Magnum II  
Modulating  
Control System

Colour Code	
BR	Brown
BL	Blue
GY	Green/Yellow
WH	White
YW	Yellow
RD	Red
BK	Black
GN	Green
V	Violet

# Total Comfort Options

## Magnum Fan Coil Unit Options

Lennox offer a range of optional equipment to enhance the specification of the Magnum Fan Coil range.

*Electric heaters/elements*

*Inlet plenum*

*Waterside controls with BMS interface (Magnum II only)*

*Condensate pump*

*Fan enable relays*

*Differential pressure switches*

*C section 20*

*Bi or test points*

*Double regulation valves (Magnum II only)*

*Top access panel*

*Copper copper coils*

*Various life enhancing coil treatments*

## The Magnum Range

*Waterside or Airside the choice is yours*

Lennox Industries offers the most comprehensive range of fan coils available from any manufacturer.

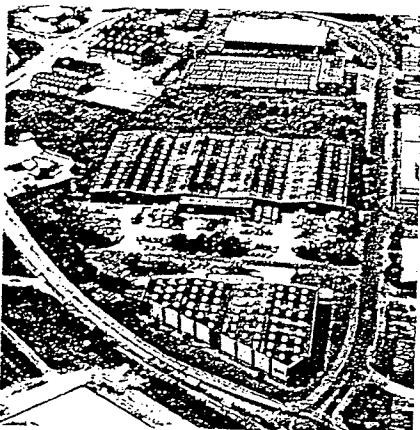
The new Magnum Range are sophisticated units designed to simplify installation, provide quiet, energy efficient operation and ensure long term reliability. Many quality features are standard and the range of factory fitted options is unlimited, which means Lennox can match your every requirement while making on-site costs both lower and more predictable.

The Magnum Range features two models; the Magnum II, and the Magnum Airside.

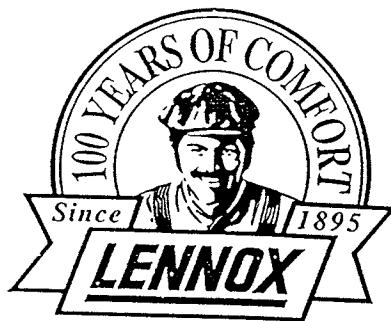
The Magnum II has a long and distinguished lineage and can meet the needs of virtually all waterside applications.

The Magnum Airside, incorporates the Lennox airside control which continuously monitors heating and cooling requirements and adjusts the airflow pattern according to need. System balancing is reduced to a minimum and once installed, apart from filter cleaning the unit requires no maintenance.

# **LENNOX**



Lennox Industries  
European Headquarters  
Northampton



From its origins in 1895 Lennox Industries has concentrated on a single purpose, that of providing indoor environmental comfort, and few companies in the heating and air conditioning business have such breadth of experience or carry out so much research and development.

As a privately owned, well established company Lennox has the ability and commitment to invest heavily in developing new, innovative products and this policy has kept the company on the leading edge of the industry's technology. Over the past 100 years we have grown to become one of the most successful and experienced manufacturers of heating and air conditioning equipment employing more than 7,000 people worldwide with factories in the United Kingdom, Australia, Canada and America.

While some manufacturers have cut corners to make a cheaper product, Lennox has been uncompromising in the pursuit of quality both in design and manufacture. Lennox equipment has an enviable reputation for efficiency, reliability, and long life.

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